

Amendment under 37 C.F.R. §1.111  
Application No. 10/800,630  
Attorney Docket No. 042236

## **REMARKS**

### **Allowable Claims**

Applicants gratefully acknowledge that claim 23 was merely objected to as depending from a rejected base claim, but is otherwise allowable.

### **Specification**

**The specification was objected to by the Examiner because the title of the invention allegedly was not descriptive.**

Accordingly, the title has been amended to overcome the objection.

### **Claim Objections**

**Claim 5 was objected to because of informalities.**

Accordingly, claim 5 has been amended to overcome the objection.

### **Rejections under 35 USC §103(a)**

**Claims 5, 7-10, 12-20, 24 and 25 were rejected under 35 USC §103(a) as being unpatentable over JP 2001-015237 in view of Akai (U.S. Patent No. 6,828,676).**

The Office Action alleged as follows:

Regarding Claim 5, JP2001-015237 discloses in Figs. 2 and 8 a semiconductor device protection cover 2B attached to a semiconductor device 1, comprising:

    a base portion;

a first surface, said first surface being flat (Fig. 8);  
a second surface having a projecting portion to be brought into contact with a substrate/housing 2A of the semiconductor device and a depressed portion not to be brought into contact with parts mounted in the semiconductor device; and  
an engaging portion to engage the semiconductor device protection cover with the substrate/housing of the semiconductor device, so as to detachably attach the semiconductor device protection cover to the semiconductor device (see Fig. 2, English Abstract).

The Office Action further alleged as follows:

JP 2001-015237 does not explicitly disclose wherein the substrate has a semiconductor chip mounted thereon. However, Akai teaches in Figs. 1, 2, and 4 a semiconductor device having a lid 5/25 implemented on a semiconductor chip 2/22 mounted on a substrate 3/23. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to incorporate a semiconductor chip mounted on a substrate, as taught by Akai into, combine and modify the JP 2001-015237 to arrive the claimed feature, the substrate has a semiconductor chip mounted thereon, since it is known in the semiconductor art that the substrate is used for mounting and supporting the semiconductor chip.

JP2001-015237 discloses a semiconductor socket to attach a semiconductor device of a **pin package** where pins are projecting from the side of the package. On the other hand, Akai discloses a semiconductor device of a **ball grid package** which has a semiconductor mounted on one surface of the substrate and has solder balls on the other surface. Thus JP2001-015237 and Akai handle different types of semiconductor devices. Despite the Office Action's allegation, it is not clear for a skilled person how the semiconductor socket of a semiconductor device of pin package is applicable to semiconductor device of ball grid package. Thus, a *prima facie* case of obviousness has not been established.

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The Supreme Court addressed the appropriate standard for obviousness in *KSR International Co. v. Teleflex Inc.*, 127 S. Ct. 1727 (April 30, 2007). The Court explained that the proper question for evaluating obviousness is “whether there was an apparent reason to combine the known elements in the fashion claimed.” *KSR*, at 1741. Here, the Office Action does not specifically show such reason.

The Office Action does not give any reason why one of skill in the art would incorporate the teaching of Akai into the teaching of JP 2001-015237. It simply alleges that it would have been obvious to incorporate a semiconductor chip mounted on a substrate, as taught by Akai into JP 2001-015237 to arrive at the claimed feature. Even assuming that a person of ordinary skill in the art tried to incorporate the teaching of Akai into JP2001-015237, it just does not make sense what should be done with the teachings. In order to establish a *prima facie* case of obviousness according to KSR, the reason for the combination or modification should be explained based on the claim recitation.

Nevertheless, claims have been amended for further clarification. JP2001-015237 and Akai do not teach or suggest the recitation of the amended claims.

In JP2001-015237, the alleged semiconductor device protection cover 2B is a lid of the socket. The alleged engaging portion of the cover 2B does not engage the cover with the semiconductor device but it engages with the socket housing 2A. The engaging portion does not extend from a peripheral portion of the second surface because JP2001-015237 shows a projection 2C.

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Also, the socket is not for the semiconductor device which has a substrate, parts mounted on the substrate, and a plurality of solder balls attached to the substrate. Moreover, in JP2001-015237, the projected portion of the cover is not shaped so as to contact the substrate of the semiconductor device. In JP2001-015237, the engaging portion is not to be engaged with a periphery of the substrate of the semiconductor device.

Thus, JP2001-015237 and Akai do not teach or suggest “an engaging portion to engage the semiconductor device protection cover with the semiconductor device, so as to detachably attach the semiconductor device protection cover to the semiconductor device, said engaging portion extending from a peripheral portion of said second surface,” and “wherein the semiconductor device has a substrate, parts mounted on the substrate, and a plurality of solder balls attached to the substrate, said projected portion of said second surface is shaped so as to contact with the substrate of the semiconductor device, said depressed portion of said second surface is shaped so as not to contact the parts mounted on the substrate, and said engaging portion is to be engaged with a periphery of the substrate of the semiconductor device” as recited in claim 5.

For at least these reasons, claim 5 patentably distinguishes over JP2001-015237 and Akai. Claims 7-10, 12, and 23-25 depending from claim 5, also patentably distinguish over JP2001-015237 and Akai for at least the same reasons.

Other independent claim 14, reciting similar features, also patentably distinguishes over JP2001-015237 and Akai. Claims 15-20, directly or indirectly depending from claim 14, also

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patentably distinguish over JP2001-015237 and Akai for at least the same reasons. Claim 13 has been cancelled.

In view of the aforementioned amendments and accompanying remarks, Applicants submit that the claims, as herein amended, are in condition for allowance. Applicants request such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney to arrange for an interview to expedite the disposition of this case.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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